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ABSTRACT

This report describes 390 performance requirements to be used as guidelines in the development of performance-based core curriculums for in-school laboratory teachers and cooperative secondary program teacher-coordinators in vocational and technical education. These performance requirements, synthesized from the performance element data identified and evaluated in the first two phases of the project, are grouped into 50 clusters in 10 categories. Sample performance-based educational objectives are provided as guides for vocational teacher educators to develop specific performance objectives to fit a particular situation. These objectives are similar to behavioral objectives but written on the general level. Each is based on one performance element and describes the activity to be performed by the teacher. Included in this report is a brief summary of the 4th national teacher education seminar, reflecting reactions of the participants to the performance requirements for teachers and their implications. Related documents are available as ED 059 354, ED 059 355, and ED 063 455. (MF)

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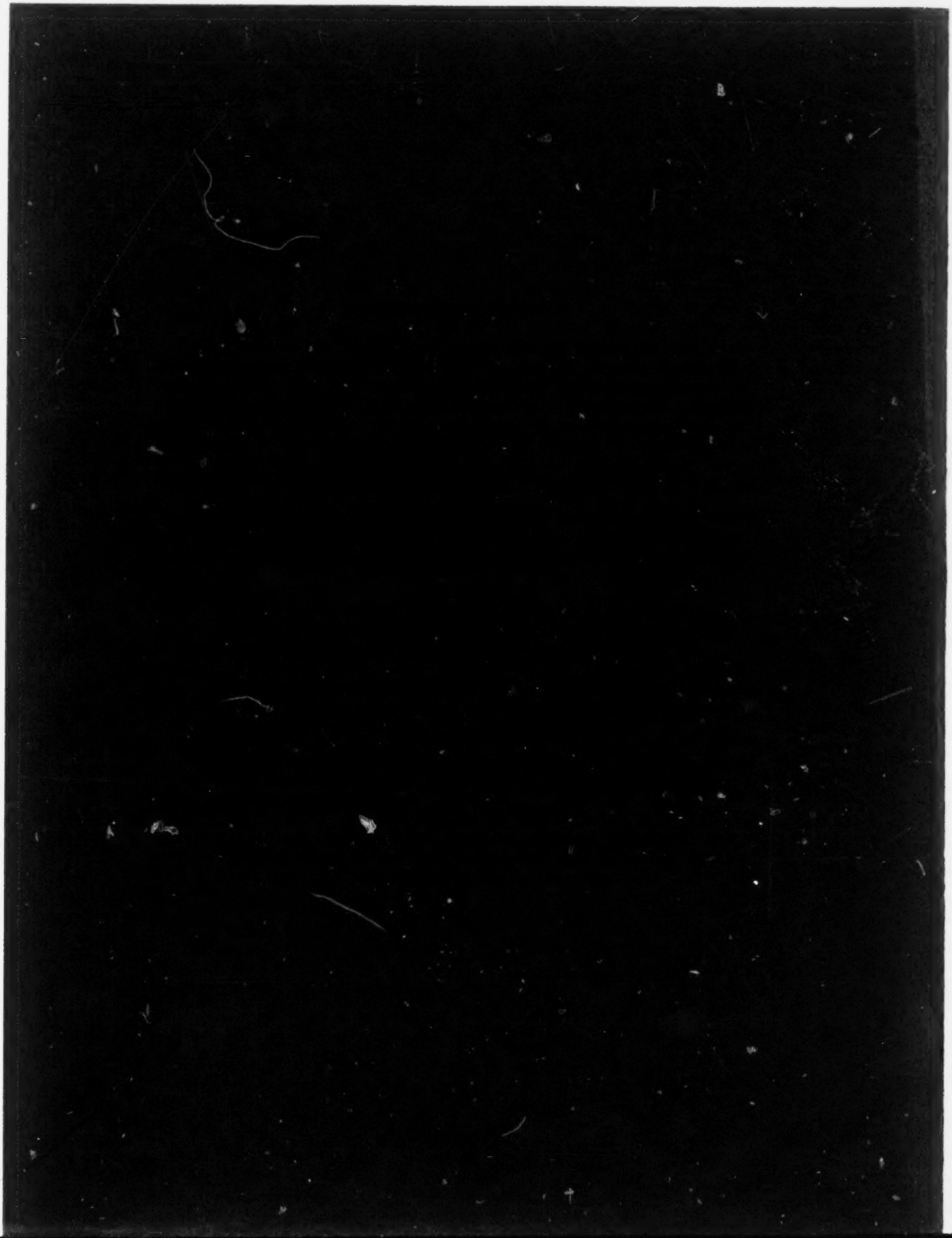

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RESEARCH AND DEVELOPMENT
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MODEL CURRICULA FOR VOCATIONAL AND TECHNICAL TEACHER EDUCATION: REPORT NO. IV

A FOUNDATION FOR PERFORMANCE-BASED INSTRUCTION

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A FINAL REPORT
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U.S. DEPARTMENT OF
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PREFACE

As part of the programmatic thrust in teacher education, The Center has engaged in the project "Model Curricula for Vocational and Technical Teacher Education." The goals of this project were to design, develop and test career-oriented and performance-based teacher education curricula. The design activity for the model curricula consisted of two parts: Phase I--determining the pedagogical performance requirements for teachers of conventional types of programs; and Phase II--identifying the pedagogical performance requirements of existing, new, and emerging types of teacher- coordinators of cooperative programs.

This report on the synthesis of data from the first two phases of the project describes the establishment of a foundation on which to build performance-based curricula to serve pre- and in-service teachers and teacher-coordinators for all vocational and technical education programs.

The services of the following are recognized in completing this phase of the project: Calvin J. Cotrell, principal investigator; Shirley A. Chase, project associate; and Marilyn J. Molnar, research technician. Appreciation is also extended to Jerome J. Gordon, assistant director for development at The Center for his editorial assistance with the manuscript.

Robert E. Taylor
Director
The Center for Vocational
and Technical Education

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SUMMARY

The process for establishing the foundation for performance-based vocational teacher education curricula development provides the main substance of this report. The current foundation was developed by merging data (from phases I and II of the project "Model Curricula for Vocational and Technical Teacher Education") to form a set of 390 performance requirements. These performance requirements (a list of professional level tasks called performance elements) have been grouped into 50 clusters and assigned to 10 categories.

The merger of data by logical interpretation and comparative analysis of performance elements derived from phases I and II of the model curricula project resulted in one common listing of performance elements. These performance elements served as guidelines for the development of performance-oriented general objectives for performance-based core curricula to prepare in-school laboratory teachers and cooperative secondary program teacher-coordinators for all vocational services. Originally, the materials were intended for use by teacher education curriculum developers in vocational and technical education who are concerned with the problem of designing performance-based curricula.

Assistance to the curriculum developer is provided by: (1) listing of the 390 performance elements in the respective clusters and categories; (2) providing sample general and specific objectives; and (3) reporting the reactions of participants of the national teacher education seminar to the performance requirements for teachers and their implications.

MODEL CURRICULA FOR VOCATIONAL AND TECHNICAL TEACHER EDUCATION: REPORT NO. IV

A FOUNDATION FOR PERFORMANCE-BASED INSTRUCTION

CHAPTER I

INTRODUCTION

RATIONALE FOR THE STUDY

Pressure for curriculum change in teacher education has been building for several years. An increasing number of departments of vocational and technical teacher education are evolving as administrative units in colleges of education across the nation. In many cases, these departments are the result of merging various individual service areas of vocational and technical education. The pressure for this change comes from a variety of economic, sociological, psychological, and pedagogical sources. Shortages of adequately prepared teacher education personnel, demands for more qualified vocational and technical teachers (including conventional as well as new and emerging types), lack of in-service education programs for teachers and other leadership personnel, and criticism of the overlap in offerings from one vocational service to another within an institution are representative of some of the concerns and problems which have led to the need for developing and defending core and specialized curricula for vocational and technical teacher education.

These needs and concerns just cited have led to the research and development efforts at The Center in the project, "Model Curricula for Vocational and Technical Teacher Education," which was designed to develop, implement, and test curricula for the preparation and in-service education of all types of vocational and technical teachers. In this project, the pedagogical aspects of teaching were studied to identify the performance requirements of teachers in each of the vocational service areas. Materials prepared as a result of this project will facilitate the joint model curricula development with a cooperating teacher education institution.

This project resulted in guideline materials being developed which should be helpful to teacher educators and other state leadership personnel in: (1) designing new teacher education curricula; (2) revising existing teacher education curricula; (3) evaluating teaching and teacher education activity; and (4) establishing performance-based certification requirements.

PHASE I STUDY OF THE PROJECT

In October 1967, Center personnel began work on Phase I of the project. First, a career analysis was made of vocational

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teaching in the vocational services (agricultural, business and office, distributive, health occupations, home economics, technical, and trade and industrial education). This effort required designing an occupational analysis methodology appropriate for identifying professional level, pedagogical performance requirements of teachers. Introspection and interview techniques of occupational analysis were applied and 237 performance requirements or elements were identified.

The 237 performance elements were evaluated by a task force of teacher educators, state supervisors, and master teachers. The task force from 19 different states represented the seven services of vocational and technical education. The importance of each performance element for beginning and experienced secondary and post-secondary teachers was rated for each vocational service. These data then were analyzed to determine the common and unique elements. There were very few differences found between the elements important to secondary and post-secondary teachers. Approximately one percent of the elements were found to be unique for experienced teachers in all services. Approximately 23 percent of the elements were found unique for beginning teachers, except for distributive education which claimed a higher percentage. After reviewing the results, the task force was called together to explain the ratings. An opportunity was provided to discuss some unexplained differences or lack of differences among service areas. The unique elements were not helpful in projecting needs for specialized courses for each service.

In an effort to verify the 237 elements and discover some new elements, a critical incident study was conducted nationally in which 700 teachers supplied critical incidents. Approximately 30 new elements were established and the importance of 140 existing ones was verified. The evidence acquired in the analysis of the critical incident data resulted in another tool to use in making decisions on important performance elements for curricular projections.

To better communicate the meaning of the performance elements, general objectives were developed as an intermediate step between performance elements and specific objectives. These general objectives would serve as guidelines for developing, revising, or evaluating teacher education curricula.

For a complete set of general objectives written by the investigators refer to the following publication: C. J. Cotrell, et al. (1971b).

For more detailed information on Phase I study of the project, refer to the publication: C. J. Cotrell, et al. (1971a).

PHASE II STUDY OF THE PROJECT

Due to national concerns for cooperative education personnel needs, the project was extended to include a study on the competencies required by teacher-coordinators of cooperative programs. The program areas studied in Phase II were off-farm agricultural, office occupations, distributive, wage-earning home economics, trade and industrial, and special needs education.

As in Phase I, the pedagogical functions of teacher-coordinators of cooperative programs were identified through both interview and introspection career-analysis techniques. Three hundred eighty-five performance elements were identified and classified under the following 10 categories: (1) program planning, development, and evaluation; (2) instruction-planning; (3) instruction-execution; (4) instruction-evaluation; (5) management; (6) guidance; (7) school-community relations; (8) student vocational organization; (9) professional role and development; and (10) coordination.

The importance of these performance elements to the success of teacher-coordinators was evaluated by mailing an instrument to a 300-member national task force of outstanding teacher-coordinators (50 for each of the six program areas) selected at random from nominations by state supervisory personnel. The task force represented 11 states having the greatest experience with the types of cooperative programs in the study.

Task force recommendations were analyzed to determine the relative importance of each performance element for each vocational service and to all services. Factor analysis was used to help establish 82 clusters of elements. A random sampling of persons on the national task force was called to The Center for a meeting to review the results and help interpret the analyses.

For more detailed information concerning Phase II study of the project, refer to the following publication: C. J. Cotrell, et al. (1972).

From the studies, Phases I and II of the project, the investigators have concluded: (1) the performance requirements as guidelines for a career-based and relevant teacher education program are the same for secondary and post-secondary teachers of in-school laboratory programs in all services; and (2) the requirements for teacher-coordinators of cooperative programs for all services are the same.

The remainder of this report consists of Dissemination Materials (Chapter II), Dissemination and Feedback for Teacher Education Seminar (Chapter III), and Projections for the Future (Chapter IV).

CHAPTER II

DISSEMINATION MATERIALS

Information from Phases I and II of the Project, "Model Curricula for Vocational Technical Teacher Education," was disseminated at the Fourth Annual National Vocational and Technical Teacher Education Seminar held in St. Louis, Missouri, November 4-7, 1970. To facilitate this dissemination the data from the two phases of the project were merged and reduced, and prototype objectives were developed to communicate the meaning of the identified performance elements. This chapter includes information on the merging of data and sample prototype objectives (general and specific).

MERGER OF DATA FROM PHASES I AND II

By logical interpretation and comparative analysis, the results of the two phases of the project were merged and reduced. To accomplish this merger, the numerical ratings of the performance elements of Phase I were converted to the rating code used in Phase II (x = high, / = moderate, and - = low).

As a result of the 28-member Task Force Conference during Phase II of the project, the 82 clusters of performance elements were refined and reduced to 50 clusters. As a next step, the performance elements from Phase I were matched with the performance elements from Phase II under the 50 clusters. An illustration of how the merger was accomplished can be seen in Appendix A. Final processing by the investigators resulted in a total list of 390 refined performance elements (see Appendix B).

Based on the data collected during the Phase I and Phase II studies, the performance requirements of teachers were considered as (1) core basic, and (2) core option guidelines for curricula for all teachers of secondary and post-secondary in-school laboratory programs and teacher-coordinators of secondary cooperative programs. A simplified listing which includes only the categories and clusters of the core basic and core option can be seen in Appendix C.

These core basic and core option guidelines are intended to be used by the investigators in the joint development of model curricula with the faculty of a cooperating vocational and technical teacher education institution.

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EDUCATIONAL OBJECTIVES

General Objectives. As the identification of performance elements was underway, it became evident that the meaning of each element was open to misinterpretation. Therefore, performance-oriented general objectives were developed for clarity of communicating the intent of each element. These performance-based objectives were written at the general guideline level, for eventual use by any vocational teacher educator in developing specific performance objectives to fit the particular situation and purpose.

Thus, the performance-oriented general objectives are similar to behavioral objectives, but are written on the general level.

Each performance-oriented general objective consists of (1) a statement of the desired activity of the teacher, (2) the general conditions under which the activity will be carried out, and (3) suggested general criteria for appraising achievement of the objective by the teacher.

Furthermore, each performance-oriented general objective is based on one performance element. This performance element is used as a guide in describing the activity to be performed by the teacher.

The conditions (givens and/or restrictions and limitations) by which the activity will be carried out must be general in nature to be flexible enough to meet the requirements of a variety of teacher education institutions and programs. A set of general conditions has been established for selecting the conditions for each general objective.

The general conditions from which selections would be made are: (1) preservice or in-service programs; (2) any teacher education institution or program; (3) a methods class, micro-teaching clinic, student teaching, internship or other specific teacher education activity; and (4) various levels of performance.

The criteria for assessing the performance of the activity are also written on the general level to encourage the teacher educator to develop the specific criteria for evaluation of teacher performance. Each criterion establishes an observable and measurable key behavior considered necessary for the achievement of the objective by the teacher. The intention is not to provide a comprehensive list of general criteria, but to offer some specific suggestions. See Figure 1 for a sample general objective. More samples of general objectives are given in Appendix D.

FIGURE 1:
SAMPLE GENERAL OBJECTIVE

Category: Instruction - Execution

Cluster: Engage educational media and resources

General Objective #125

The teacher will present information with an overhead projector.

Conditions to be selected from the following:

1. Preservice or in-service programs;
2. Any teacher education institution or program;
3. Methods class, micro-teaching clinic, student teaching, internship or other specific teacher education activity;
4. Various levels of performance.

Criteria.

1. Lesson objectives were analyzed to determine the need for using the overhead projector.
2. The manufacturer's guidelines were followed in setting up the projector.
3. Materials selected were on the comprehension level of the students.
4. A variety of projection techniques was used.
5. The overhead projector was used to present information that would aid in the clarification of the lesson.
6. All students were able to see and read the projected materials.

Specific Objectives. Prototype specific objectives have been written to show how they can be developed from the general objectives.

The structural components of specific objectives are: (1) a statement of the desired activity, (2) a statement of the conditions under which the activity is to be carried out, and (3) a statement of the criteria by which the performance of the activity may be evaluated.

The specific objectives illustrated have been developed from the general objective--"Present information with an overhead projector." One specific objective is given for each educational domain (psychomotor, cognitive, and affective). The criteria presented are not necessarily all-inclusive, but might be modified to the particular situation.

FIGURE 2:

SAMPLE SPECIFIC PERFORMANCE OBJECTIVE

(PSYCHOMOTOR DOMAIN)

Given a teaching aids laboratory situation under the supervision of the A-V technician, the prospective teacher will set up an overhead projector system including a screen following instructions specified in the manufacturer's operation manual. This set up will be accomplished in accordance with the following standards:

	SCALE					
	0	1	2	3	4	5
1. The manufacturer's recommended sequence for unpacking was followed.						
2. The manufacturer's sequence for assembly of the system was followed.						
3. The projector was leveled.						
4. The screen was aligned.						
5. The projector was focused.						
6. A sample projection was completed to test the system.						

FIGURE 3:

SAMPLE SPECIFIC PERFORMANCE OBJECTIVE

(AFFECTIVE DOMAIN)

Given an internship teaching situation with the entire responsibility for the class and lesson, the teacher (intern) will demonstrate a concern for the welfare of his students when presenting a lesson with an overhead projector. He will exhibit the following standards of behavior:

	SCALE 0 1 2 3 4 5
1. Students were seated to be able to see the screen.	
2. Lighting of the room was adjusted for comfort.	
3. The quality of the transparencies indicated care in their selection or development.	
4. The illustrations motivated the student achievement of established objectives.	

FIGURE 4:

SAMPLE SPECIFIC PERFORMANCE OBJECTIVE

(COGNITIVE DOMAIN-BEGINNING LEVEL)

Given the first week of an off-campus student teaching situation under the supervision of a cooperating teacher, the student teacher will present a lesson with the aid of an overhead projector and single transparencies and achieve a 3 level score on the following criteria:

	SCALE					
	0	1	2	3	4	5

1. The illustrations held the attention of the students.
2. The timing of the injection of the transparencies was effective.
3. Transparencies were used in an effective sequence.
4. Students were able to see and read the projected materials.
5. A pointer light or transparency pointer was used to emphasize important parts of the transparency.
6. The screen image was not obscured by the movements of the teacher.
7. The projection lamp was off when transparencies were not being used.

CHAPTER III

DISSEMINATION AND FEEDBACK FROM TEACHER EDUCATION SEMINAR

In this chapter, a brief overview of the national seminar activity is presented, and pertinent feedback received from participants to the first public dissemination on the first two phases of the model curricula project is summarized.

The two major purposes of the Teacher Education Seminar were to (1) provide information about the performance-based core concept of a model vocational technical teacher education curriculum, and (2) obtain feedback concerning the core concept from the conference participants.

SEMINAR PROCEEDINGS

The model curricula project investigators made presentations on the following topics:

1) Developmental Highlights and Procedures,

2) Career Analysis Procedures,

3) Core-Basic Performance Requirements,

4) Core-Option Performance Requirements,

5) Performance-Oriented General Objectives,

6) Specific Performance Objectives, and

7) The Future: Cooperative Development of Model Curricula.

The remainder of the seminar consisted of major presentations, symposiums, and panel reaction by nationally recognized vocational educators. Small group work and discussion sessions also were conducted. (See Ferguson (1971) for the complete seminar program report.)

REACTIONS OF PARTICIPANTS

Audience reaction to the major presentations and participant comments from the small group session were reviewed and synthesized

into lists of suggested core offerings (see Table I) and teaching strategies (see Table II).

TABLE I

SUGGESTED CORE OFFERINGS

History of Vocational Education
Philosophy of Vocational Education
Programs and Issues of Vocational Education
Formulation of Objectives
Content (Selection, Organization)
Instruction (Methodology, Technology)
Evaluation (Student Progress, Teaching-Learning, Program Achievement)
Program (Organization, Administration, Evaluation)
Manpower Data (Collection, Use)
Occupational Analysis
Programs (Disadvantaged, Handicapped, Innovative, Adult Education, Cooperative, and Work Study)
Youth Organizations
Principles and Educational Foundations of Vocational Education
Human Relations
Student Teaching Seminar

TABLE II

SUGGESTED CORE TEACHING STRATEGIES

Organizational Strategies

Team Teaching
Grid Staffing
Cooperative Education
Internship
Individualized Instruction
Differentiated Staffing
Modules
Interdisciplinary Seminar

Class Strategies

Individualized Instruction
Buzz Session
Case and Incident Problems
Symposia
Panel Discussions
Role Playing

(Continued)

Closed Circuit Television and Video Recording
for Micro-Teaching
Class Discussion
Field Trip
Demonstration
Field Trip (Visit Innovative Programs)
Resource People
Student Interaction
Directed Community Experience
Simulation
Project (Group or Individual)

Overall

Student Representation in Decision-Making

DATA COLLECTION

To obtain more information on the performance requirements for vocational and technical teachers, all participants of the seminar were asked to rate the importance of each of the clusters of performance elements for cooperative secondary, in-school secondary, and in-school post-secondary programs.

Data collection instruments (see Appendix E) were distributed at the close of the last small group work session. The participants rated each cluster of performance elements for each type of program on a three point scale of: 1 = very important, 2 = important, and 3 = not important. Table III lists the total of 116 instruments completed by service area.

TABLE III

INSTRUMENTS COMPLETED BY SERVICE AREA

Agricultural	10
Business and Office	9
Distributive	13
Home Economics	26
Health	1
Technical	33
Trade and Industrial	22
Vocational-Technical Education	26
Industrial Arts	1
Vocational Guidance	1
Other	4
	116

All clusters received ratings of important or very important for the three types of programs. The conclusion drawn was that the seminar participants considered all clusters of performance elements necessary for the success of all types of vocational and technical teachers (see Appendix E).

The reactions of participants to the seminar were thoughtful and positive, and their expressions of interest in the model curricula project were gratifying. The information collected from these educators will be used during the next phase of the project.

CHAPTER IV

PROJECTIONS

In closing this report on the foundation for performance-based curricula, some projections for next steps in the model curricula project are appropriate. Therefore, an overview of plans for the future is discussed in this chapter.

The investigators are presently in the design phase of a curriculum development effort which will require several years to complete. The next step will be to complete the development of the performance-oriented general objectives discussed in Chapter II of this report. Once these objectives have been prepared and refined, an even more useful set of guidelines will be available for curriculum developers. The guidelines will contain each of the performance elements stated as a terminal activity, as well as the associated behaviors comprising the activity. These observable and measurable behaviors will serve as guides to criteria for assessing performance. As such, the general objectives will be helpful in developing performance objectives and assessment instruments for the curricular units.

One of the next major steps will be to identify higher education institutions in which to work with the faculty to develop model curricula using these guidelines along with the best known theory and practice for vocational teacher education.

The investigators will work with the faculties of the cooperating institutions to develop the model curricula on-site and evaluate the offerings. This cooperative effort will provide further evidence on the feasibility of core curricula as these curricular packages are tested under operating conditions.

In an ideal field-based cooperative program in teacher education, performance-based professional education will be started as early as possible in a baccalaureate program. Thus, the prospective teacher will start his preparation as a paraprofessional, working with a qualified master teacher. The objective will be to provide the necessary relevant professional education along with these paraprofessional experiences. The prospective teacher will advance from some very minimal kinds of experience in his freshman year to the full responsibility for teaching, with little supervision provided by a master teacher during his senior year or in a subsequent internship. To facilitate that ideal, it is essential

to have flexible offerings in small units, mini-courses, or modules which could be entities in themselves. Modules selected and tailored to the needs of the particular teacher in the cooperative program and used at the time they were relevant will provide the most advantageous situation for viable teacher education.

DESCRIPTION OF COOPERATIVE TEACHER EDUCATION

The ideal correlation of pedagogical theory with teaching experience would be on a day-to-day basis. A module of pedagogy would require from 20 to 60 minutes of activity (reading, study, viewing videotapes or films, computer keyboard time, audio tape listening, telephone contact, or writing) for the teacher in training. Follow-up experiences applying new theory in teaching would be prescribed for integrating and articulating the new skill in the preservice or in-service teacher's repertoire of competencies. Self-evaluation devices and evaluation by the teacher educator also would be incorporated as an integral part of this sequence. The functional sequence is: (1) the teacher educator and teacher would determine the need for the module of pedagogy; (2) the assignment would be introduced by the teacher educator directly or through applications of technology such as videotape or other audiovisual techniques; (3) the teacher would engage in the educational activity prescribed for the new skill development; (4) the teacher would apply the new skill in his everyday teaching activities and check his own progress with a self-evaluation device; (5) the teacher would have his performance evaluated by fellow teachers, local supervisors, or by teacher education personnel; and (6) the process would be repeated for a new skill (steps 1-5) if performance were satisfactory, or remedial instruction would be suggested if the objectives of the module had not been achieved.

The same basic process would be possible for in-service education programs. Assuming a sequence which would require a higher level of performance on the part of the teacher as he progressed in teaching competency (from a paraprofessional to fully competent professional teacher and then continuing to improve), there might be little distinction in the so-called preservice and in-service programs.

IN-SERVICE EDUCATION

Assume an in-service teacher has decided that he wants to improve his skill in a particular technique of instruction. The teacher's location is such that regular trips to the teacher education institution or visits from a teacher educator are not practical. The teacher reviews a brochure describing the modules of professional education available from the university through

the directed, individualized self-instructional packages. By writing the teacher education office, he could obtain a set of materials through the mail. After receiving the materials and reading the instructions, he would begin work on the module. There are various instructional options, such as the choice of reading a monograph, listening to an audio tape-recorded presentation, viewing a 16mm motion picture film or video recording, or any combination of these media. The teacher has the option to call the teacher educator by telephone anytime during the experience.

To practice the new instructional skill, the teacher could use the students in his own classes. The self-evaluation form included in the instructional package would be utilized to assess his growth in accomplishing the new skill. An evaluation of certain teaching skills could be facilitated if the teacher makes a video recording of a segment of his teaching activity involving the skill being developed. By replaying the video recording, he could totally reconstruct the teaching activity and then evaluate himself with the instrument provided. At this point, he might wish to involve a fellow teacher or local supervisor to assist him in the evaluation process. If he believes he has achieved the required level of performance in this skill and is ready to receive collegiate credit, he would then mail the instructional package to the teacher educator with the materials specified as evidence of his work. The teacher educator would then review the material and certify his completion of that instructional module and credit his college record.

Although it may take quite some time to put into operation this type of teacher education program, these proposed ideas fully outline the ideal model curricula for vocational teacher education. Developmental efforts required for operationalizing such a program would doubtlessly benefit vocational teacher education. How soon this ideal program will become reality will depend greatly upon how diligently leaders in education work to implement the presently known innovations.

APPENDIXES

APPENDIX A

B. INSTRUCTION - PLANNING

Cooperative	C	I	P
I. Structure a Course	X	X	X
(53) 54. Review general objectives for the program.		X	
(54) 55. Review student performance goals developed for the program plan.		X	
(55) 56. Sequence performance goals (objectives) for a course.		X	
II. Design a Course Unit	X	X	X
(56) 57. Identify the unit topics for a course.		X	
57. Determine student needs and goals.		X	
(59) 58. Determine objectives for a unit.		X	
(60) 59. Identify lesson topics for a unit.		X	
(61) 60. Write content outline for a unit.		X	
(62) 61. Correlate unit content with on-the-job and/or laboratory experiences.		X	
(63) 62. Determine group and individual learning experiences for the unit based on individual differences of students.		X	
(64) 63. Select methods of evaluating students' performance throughout a unit.		X	
(58) 64. Involve the students in the planning of a unit.		X	

*Element placed in more than one cluster

In-School	C	I	P	HS	PHS
I. Structure a Course	X	X	X		
7. Select and develop instructional content for a course.				X	X
13. Organize the sequence of learning tasks.				X	X
II. Design a Course Unit					
*5. Determine student needs and goals.				X	X
*6. Formulate objectives.				X	X
232. Designate on-the-job learning experiences.				X	X
14. Determine instructional units.				X	X
74. Establish the evaluative criteria (lesson, unit, or course).				X	X
18. Determine and identify out-of-school learning experiences.				X	X
21. Develop a system for recording and filing subject matter information relevant to course planning.				X	X
75. Select measures appropriate to the evaluative criteria.				X	X

Code: X = important consideration
HS = high school programs
PHS = post-high school programs
C = cooperative secondary programs
I = in-school secondary programs
P = in-school post-secondary programs

APPENDIX B

MODEL CURRICULA FOR VOCATIONAL AND TECHNICAL TEACHER EDUCATION

TEACHING CAREER ANALYSIS

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PREFACE

This material was prepared for use in the presentation and discussion sessions of the preliminary interim reporting on the project, Model Curricula for Vocational and Technical Teacher Education, during the Fourth Annual National Vocational-Technical Teacher Education Seminar in St. Louis, Missouri on November 1-4, 1970.

The pedagogical requirements of vocational and technical teachers and teacher-coordinators of cooperative programs are provided in this document.

The listing of categories, clusters and elements and cluster ratings are the result of a career analysis of vocational and technical teaching and subsequent data collection, analysis and interpretation by the project staff.

There are 10 different categories from Program Planning, Development and Evaluation, to Coordination. The categories are divided into 50 clusters and the 390 performance elements are listed under their respective cluster titles. The cluster titles, developed to facilitate communication, describe the general nature of a cluster of related elements.

Staff analysis and interpretation of the data from the project have been used as a basis for indicating the clusters that deserve important teacher education curricular consideration for teachers of the in-school secondary and post-secondary and cooperative secondary education programs. More detailed ratings of clusters and elements will be available in the reports to be published on the project.

An "X" in either of the boxes to the right of each of the 50 cluster titles on the following pages indicates that the performance elements listed in the particular cluster are important to teacher education curricular projections for the type of program specified.

Examples:

	C	I
B-3. Plan a lesson	X	X

The above rating indicates the cluster is important to teachers and teacher-coordinators of all types of vocational and technical programs and therefore becomes a concern for core basic teacher education curricula.

	C	I
J-3. Develop training plan and agreement	X	

Such a rating indicates the cluster is important primarily to teacher-coordinators of cooperative programs for all services and becomes an important consideration for a core option in teacher education curricula.

Code:

C = Cooperative Secondary Programs
I = In-School Secondary and Post-Secondary Programs
X = Important Consideration

CATEGORIES AND CLUSTERS OF PERFORMANCE ELEMENTS

(Category)

A. PROGRAM PLANNING, DEVELOPMENT AND EVALUATION

	C	I
(Cluster) A-1. Conduct a community vocational education survey	X	

(Elements)

1. Organize a steering committee to assist in the pre-planning activities of a vocational education survey.
2. Identify the geographical area in which a vocational education survey will be conducted.
3. Obtain administrative approval for conducting a vocational education survey.
4. Solicit assistance of the vocational education personnel from the state department and/or university in conducting a vocational education survey.
5. Adapt an existing vocational education survey form to local needs.
6. Consult the Chamber of Commerce to identify area employers to be contacted in a vocational education survey.
7. Consult the local office of the U.S. Employment Service to obtain information on manpower trends and needs.
8. Persuade labor representatives to participate in a vocational education survey.
9. Involve the advisory committee in conducting a vocational education survey.
10. Recruit teachers and guidance counselors to participate in conducting a vocational education survey.
11. Establish communication with employer representatives who will be involved in a vocational education survey.

A-1. (cont.)

12. Devise a plan of activities for the survey staff to follow in conducting a vocational education survey.

13. Publicize the purposes and objectives of a vocational education survey.

14. Orient the survey staff to their duties and responsibilities in collecting vocational education data.

15. Direct students in the collection of data for a vocational education survey.

16. Collect occupational data from employers to identify vocational education needs.

17. Collect student occupational interest data to identify vocational education needs.

18. Suggest a vocational education program based on analysis of the vocational education survey.

19. Disseminate the findings of a vocational education survey.

C	I
X	

A-2. Maintain an advisory committee

20. Identify the role and function of the advisory committee.

21. Establish the criteria for selection of the advisory committee members.

22. Obtain school board authorization for organizing the advisory committee.

23. Obtain the administrative approval of the selected advisory committee members.

24. Publicize the establishment of the advisory committee, its members, and its function to the school and community.

25. Orient the advisory committee members to their role and function.

A-2. (cont.)

26. Plan the annual agenda to be considered by the advisory committee.

27. Communicate the date, place and agenda for the advisory committee meetings to all persons concerned.

28. Invite resource persons who can provide consultation service to attend the advisory committee meetings.

29. Serve as the liaison for the advisory committee and the school administration.

C	I
X	X

A-3. Plan a vocational program

30. Assist in the identification of the vocational education purposes and objectives for the school

31. Determine the occupations for which training is to be offered in the vocational eudcation program.

32. Consult the advisory committee in planning an analysis of an occupation.

33. Analyze occupations with assistance of employers and labor representatives.

34. Identify the competencies needed for entry into an occupation.

35. Describe the occupational standards of performance for each task in an occupation.

36. Assist in writing general objectives for courses offered in the vocational education program.

37. Develop vocational courses by clustering and sequencing related tasks.

38. Identify knowledge and attitudes required for the performance of each occupational task included in a course.

A-3. (cont.)

39. Write student performance goals for the vocational education courses.

40. Consult the advisory committee in developing a long-range program plan for vocational education.

41. Analyze long-range course needs for the vocational education program.

42. Specify the long-range facility, equipment and supply needs for the vocational education program.

43. Prepare a long-range budget which identifies the financial needs of the vocational education program.

44. Identify the long-range needs for employing faculty for the vocational program.

45. Assist in preparing the long-range program plan for vocational education in the school.

C	I
X	X

A-4. Evaluate a vocational program

46. Maintain continual follow-up information on the placement, employment and training status of each graduate of the vocational program.

47. Obtain follow-up data from employers of vocational program graduates.

48. Determine the reasons students drop out of the vocational program.

49. Review supervisory evaluation reports for assessing the vocational program.

50. Assess the relevancy of the vocational course offerings.

51. Assess the adequacy of the vocational education facilities and equipment relative to technological changes.

A-4. (cont.)

52. Disseminate a summary of the vocational education evaluation to administrators, advisory committee members and the board of education.

B. INSTRUCTION - PLANNING

	C	I
B-1. Structure a course	X	X

53. Review general objectives for the program.

54. Review student performance goals developed for the program plan.

55. Sequence performance goals (objectives) for a course.

	C	I
B-2. Design a course unit	X	X

56. Identify the unit topics for a course.

57. Determine student needs and goals.

58. Involve the students in planning a unit.

59. Determine objectives for a unit.

60. Identify lesson topics for a unit.

61. Write content outline for a unit.

62. Correlate unit content with on-the-job and/or laboratory experiences.

63. Determine group and individual learning experiences for a unit based on individual differences of students.

64. Select methods of evaluating students' performance throughout a unit.

	C	I
B-3. Plan a lesson	X	X

65. Identify the specific objectives for a lesson.

66. Select teaching techniques for a lesson.

B-3. (cont.)

67. Plan the introduction of a lesson.

68. Plan the content of a lesson.

69. Plan the summary of a lesson.

70. Plan student learning experiences for a lesson.

71. Select methods of evaluating students' attainment of lesson objectives.

72. Write a lesson plan.

	C	I
B-4. Select instructional resources	X	X

73. Obtain textbook, reference and other instructional material.

74. Select tools and equipment for a lesson.

75. Assemble consumable supplies for instructional purposes.

	C	I
B-5. Develop instructional materials	X	X

76. Develop original instructional materials such as individualized related assignment sheets, transparencies, charts.

77. Involve students in the preparation of instructional material.

78. Obtain programmed instructional materials.

79. Prepare instructional material with a spirit duplicator.

80. Prepare instructional material with a mimeograph machine.

81. Prepare instructional (hard copy and transparency) material with photocopier.

	C	I
C. INSTRUCTION - EXECUTION		
C-1. Direct student activity	X	X

C-1. (cont.)

82. Conduct field trips.

83. Direct students in gathering information from sources in the community.

84. Conduct symposiums.

85. Conduct brainstorming sessions.

86. Direct student presentations.

87. Direct students in instructing other students.

88. Direct the use of simulation materials.

89. Conduct group supervised study.

90. Direct student laboratory experience.

91. Direct students in applying problem-solving techniques.

92. Present information through case study problems.

93. Present information by the project method.

94. Direct student study of textbooks, bulletins and pamphlets.

95. Direct student study of information and assignment sheets.

96. Direct students in preparing laboratory work or job plans.

97. Guide student progress through the use of operation and/or job sheets.

C-2. Promote group interaction	C	I
	X	X

98. Lead group discussions.

99. Conduct panel discussions.

100. Conduct buzz groups.

101. Employ question box technique.

C-2 (cont.)

102. Employ role-playing techniques.

	C	I
C-3. Apply basic instructional strategies	X	X

103. Introduce a lesson.

104. Obtain summary for a lesson.

105. Employ oral questioning techniques.

106. Acknowledge student verbal and non-verbal cues.

107. Enrich instruction to challenge the abilities of the abler student.

108. Reinforce learning.

109. Provide remedial work for slower students.

110. Employ reward techniques.

111. Establish frames of reference to enable the students to understand a situation from several points of view.

112. Apply non-verbal techniques such as gestures, facial expressions and silence.

	C	I
C-4. Employ teacher-centered methods of presentation	X	X

113. Demonstrate a manipulative skill.

114. Present a concept or principle through a demonstration.

115. Give a lecture.

116. Give an illustrated talk.

117. Present information with analogies.

118. Present information through individualized instruction.

119. Present information through team teaching.

C-4. (cont.)

120. Give an assignment.

C	I
X	X

C-5. Engage educational media and resources

121. Present information with the assistance of a resource person.

122. Present information with bulletin boards.

123. Present information with exhibits.

124. Illustrate with models and real objects.

125. Present information with an overhead projector.

126. Present information with an opaque projector.

127. Present information with filmstrips.

128. Present information with slides.

129. Present information with sound motion pictures.

130. Present information with single concept films.

131. Present information with an audio recorder.

132. Present information with a video recorder or closed circuit television.

133. Present information with a tele-speaker (telephone amplifier).

134. Present information with a phonograph.

135. Present information with educational television.

136. Direct teaching machine programmed instruction.

137. Present information by computer assisted instruction.

C-5. (cont.)

138. Direct written programmed instruction.

139. Present information with the aid of a flannel board.

140. Present information with the aid of a flip chart.

141. Present information with the aid of a chalkboard.

D. INSTRUCTION - EVALUATION

C	I

D-1. Evaluate performance of students

X	X

142. Establish criteria for student performance.

143. Formulate a system of grading consistent with school policy.

144. Appraise students' products according to performance standards of the occupations.

145. Appraise students' performance in relation to instructional goals.

146. Evaluate individualized related assignments completed under directed study.

147. Devise self-evaluation techniques for use by students.

148. Arrange for students to evaluate their own progress.

149. Engage in cooperative evaluation of achievement with students.

150. Determine grade for performance for related and laboratory and/or on-the-job instruction.

151. Interpret students' evaluation of instruction.

C	I

D-2. Develop tests and rating sheets

X	X

152. Formulate essay test items.

D-2. (cont.)

153. Formulate true-false test items.

154. Formulate completion test items.

155. Formulate matching test items.

156. Formulate multiple choice test items.

157. Devise laboratory performance tests.

158. Devise laboratory performance rating sheets.

159. Formulate test items for an oral exam.

C	I
X	X

D-3. Administer and analyze tests

160. Administer teacher made tests.

161. Devise case study problems.

162. Analyze tests for validity.

163. Analyze tests for reliability.

C	I
X	X

D-4. Evaluate quality of instruction

164. Review student progress and/or achievement records to assess effectiveness of instruction.

165. Formulate cooperatively with students procedures which provide for their participation in the evaluation of instruction.

166. Obtain information from fellow teachers and supervisory personnel regarding the quality of one's instruction.

167. Seek opportunities for self-evaluation of instruction through self-rating devices and instructional media such as video or audio recording.

E. MANAGEMENT

C	I
X	X

E-1. Project instructional resource needs

E-1. (cont.)

168. Compile a list of supplies needed for the academic year.

169. Identify new tools and equipment needed in a vocational course for the academic year.

170. Recommend reference books and periodicals related to vocational education that should be added to the library.

	C	I
E-2. Prepare budgets	X	X

171. Prepare a capital outlay budget proposal for new equipment needed in a vocational course.

172. Plan an operating budget proposal for consumable supplies, services and materials needed in a vocational course.

173. Prepare a budget for estimated travel expenses incurred in vocational activities.

	C	I
E-3. Procure supplies and facilities	X	X

174. Arrange for additional vocational facilities to accommodate expanded enrollments and technological advancements in a course.

175. Prepare purchase requests for approved vocational equipment and supplies.

176. Design a procedure for acquiring the consumable supplies and materials needed in a vocational course.

177. Accept gifts or donations of supplies and equipment for the vocational program in accordance with school policy.

178. Devise a system for determining and collecting student fees for consumable supplies.

	C	I
E-4. Maintain records and filing system	X	X

179. Structure a filing system for records and report forms used in a vocational course.

180. Supply administrators with data for vocational reports required by the state department of education.

181. Devise a filing system for instructional materials.

182. Devise a system for maintaining occupational information and opportunity data for use by vocational students.

183. Record vocational student attendance according to school policy.

184. Record vocational students' grades according to school policy.

185. Assemble student file documenting personal habits, attitudes and grades.

	C	I
E-5. Provide for safety of students in the laboratory		X

186. Provide approved safety apparel and devices for vocational students assigned to hazardous equipment.

187. Establish a procedure for attending first aid needs of vocational students.

188. Maintain a record of safety instruction presented in compliance with safety laws and regulations.

	C	I
E-6. Control student behavior	X	X

189. Uphold school standards of expected student behavior.

190. Formulate with students acceptable standards of behavior in vocational classrooms and laboratories.

E-6. (cont.)

191. Uphold acceptable standards of student behavior in vocational classrooms and laboratories.

192. Carry out approved disciplinary action when warranted.

193. Encourage students to exercise self-discipline.

194. Control outbursts of fighting and aggressive behavior.

C	I
	X

E-7. Maintain the laboratory

195. Maintain an inventory of vocational tools, supplies, and equipment assigned to the laboratory.

196. Establish a system for repairing and servicing tools and equipment in the laboratory.

197. Arrange for the storage and security of supplies and equipment.

198. Implement student "check out" procedures for tools, supplies, and equipment used in the laboratory.

199. Direct students in a system for cleaning and maintaining the laboratory.

200. Schedule laboratory equipment for maximum utilization by students.

201. Arrange layout of the laboratory to simulate occupational environment.

202. Arrange the laboratory work areas and storage space to facilitate student work performance.

203. Control heat, light, and ventilation in the laboratories and classrooms.

204. Establish a policy for use of the physical facilities by outside groups and other school personnel.

F. GUIDANCE

	C	I
F-1. Obtain background information on students	X	X

205. Determine students' background and environment.

206. Administer subject matter diagnostic tests.

207. Analyze students' cumulative records.

208. Maintain anecdotal records on students.

209. Determine relationships among students through sociometric techniques (e.g., sociogram).

210. Review students' autobiographies for information to aid in understanding the students.

211. Assemble information for case study reports.

	C	I
F-2. Promote constructive interrelationships with students	X	X

212. Communicate with prospective and continuing students during the summer.

213. Maintain an open door policy for student consultation.

214. Encourage students to discuss career aspirations.

215. Demonstrate a regard for and an interest in students as individuals.

216. Develop constructive working relationships among students.

217. Demonstrate personal concern for a student and his family.

218. Conduct home visits.

	C	I
F-3. Counsel students	X	X

219. Recognize potential problems of students.

F-3. (cont.)

220. Conduct a conference for counseling a student.

221. Conduct group counseling sessions.

222. Confer with a student and his parents regarding the student's educational development.

223. Interpret occupational tests and inventories to students.

224. Assist students in developing good study habits.

C	I
X	X

F-4. Involve resource persons and agencies in assisting students

225. Establish communication patterns for exchanging information and for cooperating with the guidance counselor.

226. Supply the guidance counselor with performance data about students.

227. Refer students to the guidance counselor and other specialists.

228. Assist students with their problems by working cooperatively with agencies such as the health and welfare services.

229. Work with other teachers to help students with individual problems.

230. Refer students to qualified personnel agencies for occupational and educational information.

231. Arrange with the guidance counselor for administration and interpretation of personality, aptitude and intelligence tests for specific students.

232. Arrange for the local office of the U.S. Employment Service to administer and to interpret the General Aptitude Test Battery.

	C	I
F-5. Assist students in planning post graduate education and employment	X	X

233. Present information to students on occupational opportunities.

234. Present information to students on post-high school training and educational opportunities available to them.

235. Assist students in determining ways to best describe their salable skills.

236. Write letters of recommendation for students.

237. Assist graduates or seniors in preparing for interviews with potential employers.

238. Assist students in securing and in filling out applications for jobs, scholarships, educational loans or college admission.

G. SCHOOL-COMMUNITY RELATIONS

	C	I
G-1. Plan school-community relations activities	X	

239. Assist in the development of policies regarding school-community relations.

240. Plan the school-community relations activities for the vocational program.

241. Procure clearance from the school administration to conduct school-community relations activities related to the vocational program.

	C	I
G-2. Publicize the vocational program	X	

242. Express a philosophy consistent with that of the vocational staff.

243. Speak to school and community groups on the vocational program.

244. Provide brochures to inform the school and community of the vocational program.

G-2. (cont.)

245. Provide displays in the school and the community on the vocational program.

246. Prepare news releases on activities of the vocational program for newspapers and other periodicals.

247. Present activities of the vocational program on television.

248. Present activities of the vocational program on radio.

249. Direct student presentations describing activities of the vocational program.

C	I
X	X

G-3. Maintain good community relationships

250. Conduct an open house to familiarize members of the school and community with activities of the vocational program.

251. Sponsor student-parent activities for the vocational program.

252. Assist with special community social events.

253. Assist with community business and industry sponsored activities.

254. Serve in professional nonvocational organizations to improve the image of the vocational program.

255. Serve in a community civic, service or social organization to improve the image of the vocational program.

256. Provide consultant services to local business and industry.

257. Maintain liaison with union officials and employers.

258. Maintain liaison with employment agencies.

259. Maintain liaison with community professional, service, fraternal, social, and religious organizations.

G-3. (cont.)

260. Maintain good relations with other schools.

261. Maintain liaison with state department personnel.

	C	I
G-4. Obtain school-community feedback on vocational program	X	

262. Obtain informal feedback on the vocational program through contacts with individuals in the school and community.

263. Conduct opinion surveys in the school and community concerning the vocational program.

264. Analyze enrollment trends to determine student and parent acceptance of the vocational program.

265. Obtain information from parents relative to their expectations of the vocational program.

266. Consult the advisory committee to obtain information concerning their expectations of the vocational program.

267. Acquire information from members of the community power structure (e.g., political, social, economic pressure groups) regarding their expectations of the vocational program.

268. Study community voting results on financial issues affecting the vocational program to determine community support of the program.

269. Study in-school election results (student council, class officers) to determine the image of the vocational students in the school.

	C	I
G-5. Maintain good intra-school relationships	X	X

270. Maintain working relationships with the faculty and administration.

271. Assist in planning the overall objectives of the total school program.

G-5. (cont.)

272. Maintain working relationships with the school supporting staff through cooperation and mutual effort.

H. STUDENT VOCATIONAL ORGANIZATION

C	I

H-1. Establish a student vocational organization

X	X

273. Obtain approval from the school administration for establishing the student vocational organization.

274. Contact state department personnel regarding the steps to be followed in organizing the student vocational organization.

275. Acquaint prospective members and their parents with the purposes, activities and values of the student vocational organization.

276. Organize a student committee to assess the interest of students in joining the student vocational organization.

277. Assist in the development of constitution and bylaws for the student vocational organization.

C	I

H-2. Advise a student vocational organization

X	X

278. Conduct an organizational meeting for the student vocational organization.

279. Direct initiation activities of the student vocational organization.

280. Orient students to the student vocational organization.

281. Assist in the election and installation of officers of the student vocational organization.

282. Conduct leadership training session for the officers of the student vocational organization.

H-2. (cont.)

283. Obtain the assistance of the state department personnel in maintenance of the student vocational organization.

284. Coordinate student vocational organization activities with instructional activities.

285. Maintain the student vocational organization as an integral part of the instructional program.

286. Assist students in developing a yearly program of activities for the student vocational organization.

287. Assist students in advancing within the available degrees in the student vocational organization.

288. Supervise social and educational activities for the student vocational organization.

289. Involve elected chapter parents in the activities of the student vocational organization.

290. Assist students with the publicizing of the student vocational organization activities.

291. Assist students with the financial management of the student vocational organization.

292. Assist in planning and organizing fund raising activities for the student vocational organization.

293. Maintain a file of publications available for the student vocational organization.

294. Supervise the development of an annual handbook for the student vocational organization.

295. Supervise the development of a chapter scrapbook for the student vocational organization.

296. Evaluate the student vocational organization.

	C	I
H-3. Participate in activities of the state and national student vocational organization	X	X

297. Affiliate the student vocational organization with the state and national vocational organization.

298. Assist in the preparation of state and national reports for the student vocational organization.

299. Provide advice and training for student entries in state and national student vocational organization contests.

300. Send student representatives to district, state, regional and national student vocational organization activities.

301. Assist in the development of rules and procedures for conducting state, regional and national student vocational organization contests.

302. Serve as an advisor or judge for district, state, regional or national student vocational organization contests.

303. Participate in state, district, regional and national activities of the student vocational organization.

I. PROFESSIONAL ROLE AND DEVELOPMENT	C	I
I-1. Uphold philosophy and goals of the profession	X	X

304. Identify current trends of the teaching profession.

305. Promote the attainment of the goals and objectives of the teaching profession.

306. Express a philosophy relevant to the basic goals of the teaching profession.

307. Express a philosophy consistent with the objectives of vocational and technical education.

I-1. (cont.)

308. Maintain ethical standards expected of a professional educator.

309. Exchange observational visits, innovations, and ideas with other teachers.

310. Evaluate periodically one's educational philosophy in relation to that held by a majority of other members of the teaching profession.

C	I
X	X

I-2. Contribute professional service

311. Support professional organizations through membership and attendance at meetings.

312. Serve professional organizations as an officer and/or chairman or member of a committee.

313. Represent the teaching profession as a committee member or delegate to meetings and activities of other professions.

314. Participate in experimental and other data collecting research activities.

315. Write an article or book for publication which contributes to the literature of the profession.

316. Assist teachers who are new in the system to understand the policies and regulations of the school.

317. Work with a team of professionals from the school and/or community on pertinent school problems.

318. Serve community needs by contributing professional expertise to civic projects.

C	I
X	X

I-3. Advance one's professional competencies

319. Consult supervisory and administrative evaluations to determine attitudes of others toward one's personal and professional abilities and limitations.

I-3. (cont.)

320. Use a self-analysis form to evaluate one's personal and professional abilities and limitations.

321. Select the position which is in keeping with one's personal and professional abilities and limitations.

322. Maintain professional certification through enrolling in graduate, extension, and in-service education programs.

323. Expand educational background and leadership potential by achieving advanced degrees.

324. Keep up-to-date through reading literature.

325. Acquire new occupational skills needed to keep pace with technological advancement in one's teaching field.

326. Update one's professional personnel file regularly.

	C	I
I-4. Assist with general school duties	X	X

327. Participate in noninstructional school duties, i.e., cafeteria, homeroom, bus duty, chaperoning, PTA.

328. Assist with nonvocational student organization activities.

	C	I
I-5. Supervise student teacher	X	X

329. Provide opportunities for potential teachers to observe and participate in the public school program.

330. Interpret the policies and regulations of the local school district to the student teacher.

331. Plan activities for the student teacher which draw upon and enrich college course work.

I-5. (cont.)

332. Assign responsibilities to the student teacher commensurate with his or her background of knowledge and experience.

333. Demonstrate pedagogical skills for student teachers.

334. Consult regularly with the student teacher regarding planning, execution, and evaluation of teaching.

335. Confer regularly with the student teacher regarding performance in the student teaching situation.

336. Confer with the college supervisor and the student teacher regarding plans for and evaluation of the total student teaching experience.

J. COORDINATION

C	I
X	

J-1. Select student-learners

337. Establish criteria for selection of student-learners.

338. Provide prospective student-learners with resource materials on occupational opportunities to aid them in selecting a vocation.

339. Administer occupational tests relative to student-learner selection and placement.

340. Gather student-learner selection data (e.g., test results, records, grades).

341. Interview students and parents to obtain student-learner interest and aptitude information.

342. Identify a prospective student-learner on basis of selection criteria and data.

343. Match a student-learner's unique characteristics with an appropriate training station.

J-1. (cont.)

344. Approve on-the-job training hours and wages for student-learners.

	C	I
J-2. Select training stations	X	

345. Establish criteria for evaluating training station potential of an employer.

346. Identify prospective cooperating employers to provide on-the-job training stations.

347. Establish criteria to evaluate qualifications of prospective on-the-job instructors.

348. Assess training capability of the on-the-job instructor of the prospective training station.

349. Assess educational adequacy of the prospective training station's facilities and equipment.

350. Assess the safety provisions of the facilities and equipment of the prospective training stations.

351. Convince an employer to provide a training station for cooperative education.

352. Arrange with a union to make contract provision for student-learners.

	C	I
J-3. Develop training plan and agreement	X	

353. Develop a cooperative training agreement between student-learner, parent, school, and cooperating employer.

354. Arrange school and work schedules with student-learners, faculty and training station personnel.

355. Develop a systematic training plan with the on-the-job instructor.

	C	I
J-4. Comply with state and federal employment regulations	X	

J-4. (cont.)

356. Aid student-learners in procuring work permits.

357. Determine federal and state wage and hour classification of the prospective cooperating employer.

358. Assist the cooperating employer in acquiring a federal permit to pay a training wage.

359. Assist the cooperating employer in verifying the legality of employing a student-learner in a hazardous occupation.

360. Establish the cooperating employer's qualifications for reimbursement for training a student-learner.

361. Obtain reimbursement for the cooperating employer providing on-the-job training.

362. Obtain reimbursement for the student-learner for allowable training costs such as clothing and tools.

	C	I
J-5. Supervise student-learner's on-the-job experience	X	

363. Prepare the student-learner for an interview with the cooperating employer and training station personnel.

364. Assist the student-learner in on-the-job training orientation.

365. Assist the cooperating employer's personnel in accepting the training status and role of the student-learner.

366. Maintain good working relationships with the training station personnel.

367. Develop a procedure to insure the student's safety and protection in the training station.

368. Develop a plan for teacher-coordinator supervision of on-the-job training.

J-5. (cont.)

369. Inform the administration of daily coordination itinerary.

370. Assess occupational experience daily reports with the student-learner to plan future instruction.

371. Encourage the on-the-job instructor to follow the progression of experiences for the student-learner outlined in the training plan.

372. Maintain the student-learner's progress record forms for on-the-job training and related instruction.

373. Examine the student-learner's progress records to determine future on-the-job training experiences and related classroom assignments.

374. Maintain a record of individual work hours, wages, and work progression of on-the-job training.

375. Assist the student-learner in the solution of problems related to on-the-job training.

376. Control student-learner absenteeism from related class and on-the-job training.

377. Control the transfer of student-learners within the cooperative program and to other school programs.

378. Conduct termination procedures for on-the-job training for the student-learner when conditions demand it and at the close of a training program.

379. Sponsor employer and student-learner banquet for the vocational program.

	C	I
J-6. Evaluate on-the-job performance of student-learners	X	

380. Evaluate the student-learner's work qualities and habits on the job.

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J-6. (cont.)

381. Evaluate the student-learner's personal traits and characteristics on the job.

382. Check the student-learner's progress in acquiring skills on the job.

383. Check the student-learner's progress with the on-the-job instructor and other training station personnel.

384. Assess the student-learner's performance with assistance of the on-the-job instructor.

	C	I
J-7. Improve related and on-the-job instruction	X	

385. Obtain suggestions from the on-the-job instructor to guide the selection of related class instruction.

386. Evaluate the quality of the on-the-job training received by the student-learner.

387. Provide a teacher-training workshop to assist on-the-job instructors in techniques for teaching student-learners.

388. Assist the on-the-job instructor with development of teaching techniques during visits to the training stations.

389. Expand related instruction for student-learners on the basis of information obtained from employers on new technology.

390. Obtain from the advisory committee information on ways to improve related instruction and on-the-job training.

APPENDIX C

PERFORMANCE CLUSTERS

CORE BASIC

A. PROGRAM PLANNING, DEVELOPMENT AND EVALUATION

- A-3. Plan a vocational program
- A-4. Evaluate a vocational program

B. INSTRUCTION - PLANNING

- B-1. Structure a course
- B-2. Design a course unit
- B-3. Plan a lesson
- B-4. Select instructional resources
- B-5. Develop instructional materials

C. INSTRUCTION - EXECUTION

- C-1. Direct student activity
- C-2. Promote group interaction
- C-3. Apply basic instructional strategies
- C-4. Employ teacher-centered methods of presentation
- C-5. Engage educational media and resources

D. INSTRUCTION - EVALUATION

- D-1. Evaluate performance of students
- D-2. Develop tests and rating sheets
- D-3. Administer and analyze tests
- D-4. Evaluate quality of instruction

E. MANAGEMENT

- E-1. Project instructional resource needs
- E-2. Prepare budgets

E-3. Procure supplies and facilities

E-4. Maintain records and filing system

E-6. Control student behavior

F. GUIDANCE

F-1. Obtain background information on students

F-2. Promote constructive interrelationships with students

F-3. Counsel students

F-4. Involve resource persons and agencies in assisting students

F-5. Assist students in planning post graduate education and employment

G. SCHOOL-COMMUNITY RELATIONS

G-3. Maintain good community relationships

G-5. Maintain good intra-school relationships

H. STUDENT VOCATIONAL ORGANIZATION

H-1. Establish a student vocational organization

H-2. Advise a student vocational organization

H-3. Participate in activities of the state and national student vocational organization

I. PROFESSIONAL ROLE AND DEVELOPMENT

I-1. Uphold philosophy and goals of the profession

I-2. Contribute professional service

I-3. Advance one's professional competencies

I-4. Assist with general school duties

I-5. Supervise student teacher

CORE OPTIONS

IN-SCHOOL LABORATORY:

E. MANAGEMENT

E-5. Provide for safety of students in the laboratory

E-7. Maintain the laboratory

COOPERATIVE:

A. PROGRAM PLANNING, DEVELOPMENT AND EVALUATION

A-1. Conduct a community vocational education survey

A-2. Maintain an advisory committee

G. SCHOOL-COMMUNITY RELATIONS

G-1. Plan school-community relations activities

G-2. Publicize the vocational program

G-4. Obtain school-community feedback on the vocational program

J. COORDINATION

J-1. Select student-learners

J-2. Select training stations

J-3. Develop training plan and agreement

J-4. Comply with state and federal employment regulations

J-5. Supervise student-learner's on-the-job experience

J-6. Evaluate on-the-job performance of student-learners

J-7. Improve related and on-the-job instruction

APPENDIX D

SAMPLES OF GENERAL OBJECTIVES

The attached samples of performance oriented general objectives have been prepared to illustrate how these guidelines may be used to communicate the intent of performance elements and to facilitate the development of specific performance objectives for model curricula.

SAMPLE GENERAL OBJECTIVE

Category: Student Vocational Organization

Cluster: Establish a student vocational organization

General Objective #274

The teacher will contact state department personnel regarding the steps to be followed in organizing a student vocational organization.

Conditions to be selected from the following:

1. Preservice or in-service programs.
2. Any teacher education institution or program.
3. Methods class, micro-teaching clinic, student teaching, internship or other specific teacher education activity.
4. Various levels of performance.

Criteria:

1. Communication was established with the state department personnel responsible for student vocational organizations.
2. Procedures for organizing student vocational organizations were obtained from the state department.
3. All forms and materials necessary for organizing a student vocational organization were obtained from the state department.

SAMPLE GENERAL OBJECTIVE

Category: Guidance

Cluster: Assist students in planning post graduate education and employment

General Objective #233

The teacher will present information to students on occupational opportunities.

Conditions to be selected from the following:

1. Preservice or in-service programs.
2. Any teacher education institution or program.
3. Methods class, micro-teaching clinic, student teaching, internship or other specific teacher education activity.
4. Various levels of performance.

Criteria:

1. The duties and tasks required of the occupation were explained.
2. Personnel and skill requirements of the occupation were described.
3. The working conditions and salary associated with the occupation were described.
4. The opportunities for advancement within the occupation were explained.
5. Information on occupational opportunities was assembled and displayed.
6. Students were furnished with brochures and handouts on occupational opportunities.

APPENDIX E
CLUSTER RATING

RATER INFORMATION (Also see p. 15 for quantified rater information)

Please check the area that you represent: (check only one box)

- ☐ Agricultural Education
- ☐ Business and Office Occupations Education
- ☐ Distributive Education
- ☐ Home Economics Education
- ☐ Health Occupations Education
- ☐ Technical Education
- ☐ Trade and Industrial Education
- ☐ Vocational and Technical Education
- ☐ Other (please specify) _____

Please check the item below that best describes your position:

- ☐ Teacher Educator
- ☐ State Administrator or Supervisor
- ☐ Local Administrator or Supervisor
- ☐ Other (please specify) _____

DIRECTIONS FOR RATING CLUSTERS

To obtain more information on the performance requirements for vocational and technical teachers we are asking you to rate the importance of each of the clusters for cooperative secondary, secondary in-school and post-secondary in-school programs.

Please indicate your opinion by placing a 1 (very important), 2 (important) or 3 (not important) in the appropriate box following each cluster.

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Example:

	C	S	P
Cluster A-1. Conduct a community vocational education survey.	1	3	2

Code:

C = Cooperative Secondary
S = Secondary In-School
P = Post-Secondary In-School

1 = Very Important
2 = Important
3 = Not Important

CLUSTER TITLES

		C	S	P	
A.	PROGRAM PLANNING, DEVELOPMENT AND EVALUATION				
A-1.	Conduct a community vocational education survey	1	2	2	*
A-2.	Maintain an advisory committee	1	2	1	
A-3.	Plan a vocational program	1	1	1	
A-4.	Evaluate a vocational program	1	1	1	
B.	INSTRUCTION - PLANNING				
B-1.	Structure a course	1	1	1	
B-2.	Design a course unit	1	1	1	
B-3.	Plan a lesson	1	1	1	
B-4.	Select instructional resources	1	1	1	
B-5.	Develop instructional materials	1	1	1	
C.	INSTRUCTION - EXECUTION				
C-1.	Direct student activity	1	1	1	
C-2.	Promote group interaction	1	1	1	
C-3.	Apply basic instructional strategies	1	1	1	
C-4.	Employ teacher-centered methods of presentation	2	2	2	
C-5.	Engage educational media and resources	1	1	1	
D.	INSTRUCTION - EVALUATION				
D-1.	Evaluate performance of students	1	1	1	
D-2.	Develop tests and rating sheets	1	1	1	

*These ratings were obtained during the Teacher Education Seminar (see p. 15 for further explanation).

		C	S	P
D-3.	Administer and analyze tests	1	1	1
D-4.	Evaluate quality of instruction	1	1	1
E.	MANAGEMENT			
E-1.	Project instructional resource needs	2	2	1
E-2.	Prepare budgets	2	2	2
E-3.	Procure supplies and facilities	2	2	2
E-4.	Maintain records and filing system	1	2	2
E-5.	Provide for safety of students in the laboratory	1	1	1
E-6.	Control student behavior	1	1	1
E-7.	Maintain the laboratory	2	1	1
F.	GUIDANCE			
F-1.	Obtain background information on students	1	1	1
F-2.	Promote constructive interrelationships with students	1	1	1
F-3.	Counsel students	1	1	1
F-4.	Involve resource persons and agencies in assisting students	1	2	2
F-5.	Assist students in planning post graduate education and employment	1	1	1
G.	SCHOOL-COMMUNITY RELATIONS			
G-1.	Plan school-community relations activities	2	2	2
G-2.	Publicize the vocational program	1	1	2
G-3.	Maintain good community relationships	1	1	1
G-4.	Obtain school-community feedback on vocational program	1	2	1

		C	S	P
G-5.	Maintain good intra-school relationships	1	1	1
H.	STUDENT VOCATIONAL ORGANIZATION			
H-1.	Establish a student vocational organization	2	2	2
H-2.	Advise a student vocational organization	2	2	2
H-3.	Participate in activities of the state and national student vocational organization	2	2	2
I.	PROFESSIONAL ROLE AND DEVELOPMENT			
I-1.	Uphold philosophy and goals of the profession	1	1	1
I-2.	Contribute professional service	1	1	1
I-3.	Advance one's professional competencies	1	1	1
I-4.	Assist with general school duties	2	2	2
I-5.	Supervise student teacher	2	2	2
J.	COORDINATION			
J-1.	Select student-learners	1	2	2
J-2.	Select training stations	1	2	2
J-3.	Develop training plan and agreement	1	2	2
J-4.	Comply with state and federal employment regulations	1	2	2
J-5.	Supervise student-learner's on-the-job experience	1	2	2
J-6.	Evaluate on-the-job performance of student-learners	1	2	2
J-7.	Improve related and on-the-job instruction	1	2	2

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